

## **REMARKS**

Claims 3-17 have been submitted for examination. The specification has been objected to due to the need to update the status of the parent application. The specification has been so amended. We would like to point out that this application has an effective filing date of January 24, 2000. This application has been assigned to International Fuel Cells, LLC, now UTC Fuel Cells, LLC, by change of name. Enclosed please find documents confirming the aforesaid change of name.

Claims 3, 4, 8, 12, 13 and 17 stand rejected as being obvious over Dunster et al. Claims 5-7, 9-11 and 14-16 stand rejected as being obvious over the combined teachings of Dunster et al and Grasso et al. We will address the second obviousness rejection first herein below.

### **Th §103 rejections based on Dunster et al in view of Grasso et al:**

We note that the Grasso et al is also owned by International Fuel Cells, LLC, and that it has an issue date of August 14, 2001. Thus the instant application and the Grasso et al application were co-pending, and are owned by the same entity, International Fuel Cells, LLC. These being the facts in this case, Grasso et al is not prior art under §102 of the patent statute, and is thus not prior art under §103 of the patent statute. This rejection is thus non-statutory and must be reconsidered and withdrawn. Early notice to that effect is courteously requested.

### **The §103 rejections based solely on Dunster et al:**

These rejections are grounded on a "result effective variable" argument put forth by the Examiner. The Examiner has admitted that the result sought by the claimed subject matter in the instant application, i.e., that the radially flowing stream will be deflected so as to flow axially in the mixing tubes after a mixing tube penetration which is about half the radius of the mixing tubes is not a "result" that is suggested as being desirable in Dunster et al.

The Examiner has characterized the "result" sought by Dunster et al as achieving "uniformity of gas flow" (page 4, line 12, OA), citing Col. 5, lines 10-21 of Dunster et al, for support of this desired "result" characterization. In fact, the cited portion of the reference specifies that "uniform volumes of gas flows through the orifices 86 into the tubes 80" (emphasis added) is one "result" being sought by Dunster et al. That general result is achieved in Dunster et al by having a pressure differential that will create a turbulent gas stream in the transfer tubes. That "result" is not simply "uniformity of gas flow" as alleged by the Examiner. The Examiner then goes on to state that it would have been obvious to modify the pressure differential variable "to get optimum operation" (OA, page 4, line 14). That latter phrase put

forth by the Examiner to support her obviousness rejection is vague and indefinite to the nth degree. The claims in question do not use the phrase "optimum operation", and if they did, they would be properly rejected as being vague and indefinite. The alleged Dunster et al "results" put forth by the Examiner above, i.e., "uniformity of gas flow" and "optimum operation" appear to be over simplifications of the actual "result" sought by Dunster et al which is set forth below.

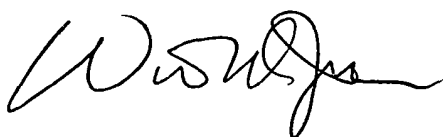
We would like to direct the Examiner's attention to what the specific "result" actually sought by Dunster et al really is. The desired specific "result" sought by Dunster et al is actually "turbulent" gas flow in the tubes 80. See, for example, Cols. 5 and 6 of the reference wherein, the terms "turbulent" or "turbulence" are identified at least six times therein as the desired "result" sought by the Dunster et al reference. It is quite clear that gas stream flow "turbulence" is the "result" which is actually sought by the Dunster et al structure.

If the Examiner is going to rely on the "result-effective variable" doctrine (see MPEP §2144.05 II B) the result sought by the claimed subject matter has to be the same result that is sought by the prior art. See In re Antonie, 195 USPQ 6 (CCPA 1977).

The "result" sought by Applicant is quite clearly set forth in the claims in question, and it is merely to convert the gas stream flow from the radial direction to an axial direction in the mixing tubes by the time the radial flow stream penetrates the transfer tubes a distance which is about one half of the radius of the transfer tubes. This creates a smooth flow pattern of the two gases in the transfer tubes, not a turbulent flow pattern. Thus the gas stream in the transfer tubes does not "plow" into the catalyst bed, but rather flows smoothly thereinto. There is no suggestion in Dunster et al that a smooth flow pattern is desirable, in fact just the opposite, and there is certainly no suggestion in Dunster et al of any way to achieve the smooth flow pattern, much less that it can be achieved by maintaining a pressure differential that will result in the claimed change of direction of the radially flowing component of the gas stream in the transfer tubes.

It is respectfully submitted that one would not be motivated to vary the pressure differential of Dunster et al in order to achieve a result that is not desirable in Dunster et al, and is directly contrary to the result achieved by Dunster et al. Thus, it is respectfully submitted that Dunster et al does not render obvious the subject matter as a whole that is claimed in Claims 3, 4, 8, 12, 13 and 17 or any of the other claims of the instant application.

Respectfully submitted,



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